Patent Claims

1. A method for compensation for a zero error in a Coriolis gyro (1'), in which:

- the frequency of the read oscillation is modulated,
- the output signal from a rotation rate control loop or quadrature control loop for the Coriolis gyro (1') is demodulated in synchronism with the modulation of the frequency of the read oscillation in order to obtain an auxiliary signal which is a measure of the zero error,
- a compensation signal is produced, and is passed to the input of the rotation rate control loop or quadrature control loop, with
- the compensation signal being controlled such that the magnitude of the auxiliary signal is as small as possible.

2. The method as claimed in claim 1, **characterized in that** the modulation of the frequency of the read oscillation is a modulation with a zero mean value.

3. The method as claimed in claim 1 or 2, **characterized in that** the auxiliary signal is low-pass-filtered, and the compensation signal is produced on the basis of the low-pass-filtered auxiliary signal.

4. The method as claimed in claim 1, **characterized in that** the compensation signal is produced by multiplication of a controlled signal, which is produced on the basis of the auxiliary signal, by a signal which originates from an amplitude regulator for controlling the amplitude of the stimulating oscillation.

5. The method as claimed in one of the preceding claims, **characterized in that** the auxiliary signal is

determined from the output signal from the quadrature control loop, and the compensation signal is passed to the input of the rotation rate control loop.

6. A Coriolis gyro (1'), **characterized by** a device for determination of the zero error of the Coriolis gyro (1'), having:

- a modulation unit (29) which modulates the frequency of the read oscillation of the Coriolis gyro (1'),
- a demodulation unit (26), which demodulates the output signal from a rotation rate control loop or quadrature control loop of the Coriolis gyro (1') in synchronism with the modulation of the frequency of the read oscillation, in order to obtain an auxiliary signal which is a measure of the zero error, and
- a control unit (28), which produces a compensation signal and passes this to the input of the rotation rate control loop or quadrature control loop, with the control unit (28) controlling the compensation signal such that the auxiliary signal is as small as possible.